

WHAT IS CLAIMED IS:

1. A method for improving a selection of a graphic user interface (GUI) icon with a pointing device, comprising the steps of:
 - 3 acquiring data corresponding to a motion of a pointing cursor on a display, said motion of said pointing cursor corresponding to a movement pointing device used to move said pointing cursor from a first source position to a first destination position on said display;
 - 7 generating a set of motion vectors corresponding to said motion of said pointing cursor from said first source position to said first destination position; and
 - 9 storing said set of motion vectors and said destination position referenced to said first source position.
1. The method of claim 1 further comprising the steps of:
 - 2 1) generating, within an application program, a first motion vector for said pointing cursor on said display as said pointing cursor moves from a second source position in response to a motion of said pointing device;
 - 5 2) predicting a destination point icon in response to a compare of said first source position to a corresponding stored source position or a source position proximate to said first source position, wherein said corresponding stored source

8 position which compares to said first source position also has stored said first motion
9 vector or a motion vector proximate to said first motion vector; and
10 3) highlighting said destination point icon;

1 3. The method of claim 2, further comprising the step of:
2 repeating said steps 1) through 3) until said highlighted destination point icon
3 is actuated by a user of said pointing device.

1 4. The method of claim 1, further comprising the steps of:
2 1) generating, within an application program, a first motion vector for said
3 pointing cursor on said display as said pointing cursor moves from a second source
4 position in response to a motion of said pointing device;
5 2) predicting a destination point icon in response to a compare of said first
6 source position to a corresponding stored source position or a source position
7 proximate to said first source position, wherein said corresponding stored source
8 position which compares to said first source position also has stored said first motion
9 vector or a motion vector proximate to said first motion vector; and
10 3) modifying a motion of said pointing cursor to more nearly follow ideal
11 motion vectors from said first source position to said destination point icon.

1 5. The method of claim 4, further comprising the step of:
2 repeating said steps 1) through 3) until said predicted destination point icon is
3 actuated by a user of said pointing device.

1 6. The method of claim 1, wherein said display corresponds to a graphic user
2 interface (GUI).

1 7. The method of claim 1, wherein said first source position is a position of a
2 predetermined source point icon.

1 8. The method of claim 1, wherein said first destination position is a position of
2 a predetermined destination point icon.

1 9. The method of claim 1, wherein another of said motion vectors is generated
2 each time said motion starts from a motion stop.

1 10. The method of claim 1, wherein said motion vector comprises parameters
2 defining a pointing cursor average velocity, starting position, stopping position, and
3 motion direction.

- 1 11. The method of claim 6, wherein said set of motion vectors are stored in
 response to actuating said destination point icon.
- 1 12. The method of claim 1, wherein said set of motion vectors are associated with
 said first source position and source positions proximate to said first source position,
□ 3 and said first destination position and destination positions proximate to said second
□ 4 position.
- 1 13. The method of claim 2, wherein said second source position corresponds to a
 position of a source point icon.
- 1 14. The method of claim 2, wherein said pointing cursor locks to said destination
 point icon until said destination point icon is actuated by a user.
- 1 15. The method of claim 2, wherein said pointing cursor locks to said destination
 point icon until a motion vector indicates a more likely destination point icon.
- 1 16. The method of claim 3, wherein said pointing cursor motion proceeds from
 said first source position to said destination point icon corresponding to an ideal
 motion vector, said ideal motion vector motion changed only if a new destination
 point icon is determined.

1 17. A computer program product, said computer program product embodied in a
2 machine readable medium, including programming for a processor, said computer
3 program comprising a program of instructions for performing the program steps of:

4 acquiring data corresponding to a motion of a pointing cursor on a display,
5 said motion of said pointing cursor corresponding to a movement pointing device
6 used to move said pointing cursor from a first source position to a first destination
7 position on said display;

8 generating a set of motion vectors corresponding to said motion of said
9 pointing cursor from said first source position to said first destination position; and

10 storing said set of motion vectors and said destination position referenced to
11 said first source position.

1 18. The computer program product of claim 17 further comprising the steps of:

2 1) generating, within an application program, a first motion vector for said
3 pointing cursor on said display as said pointing cursor moves from a second source
4 position in response to a motion of said pointing device;

5 2) predicting a destination point icon in response to a compare of said first
6 source position to a corresponding stored source position or a source position
7 proximate to said first source position, wherein said corresponding stored source

8 position which compares to said first source position also has stored said first motion
9 vector or a motion vector proximate to said first motion vector; and
10 3) highlighting said destination point icon;

1 19. The computer program product of claim 18, further comprising the step of:
2 repeating said steps 1) through 3) until said highlighted destination point icon
3 is actuated by a user of said pointing device.

1 20. The computer program product of claim 17, further comprising the steps of:
2 1) generating, within an application program, a first motion vector for said
3 pointing cursor on said display as said pointing cursor moves from a second source
4 position in response to a motion of said pointing device;
5 2) predicting a destination point icon in response to a compare of said first
6 source position to a corresponding stored source position or a source position
7 proximate to said first source position, wherein said corresponding stored source
8 position which compares to said first source position also has stored said first motion
9 vector or a motion vector proximate to said first motion vector; and
10 3) modifying a motion of said pointing cursor to more nearly follow ideal
11 motion vectors from said first source position to said destination point icon.

1 21. The computer program product of claim 20, further comprising the step of:
2 repeating said steps 1) through 3) until said predicted destination point icon is
3 actuated by a user of said pointing device.

1 22. The computer program product of claim 17, wherein said display corresponds
2 to a graphic user interface (GUI).

1 23. The computer program product of claim 17, wherein said first source position
2 is a position of a predetermined source point icon.

1 24. The computer program product of claim 17, wherein said first destination
2 position is a position of a predetermined destination point icon.

1 25. The computer program product of claim 17, wherein another of said motion
2 vectors is generated each time said motion starts from a motion stop.

1 26. The computer program product of claim 17, wherein said motion vector
2 comprises parameters defining a pointing cursor average velocity, starting position,
3 stopping position, and motion direction.

1 27. The computer program product of claim 24, wherein said set of motion
2 vectors are stored in response to actuating said predetermined destination point icon.

1 28. The computer program product of claim 17, wherein said set of motion
2 vectors are associated with said first source position and source positions proximate
3 to said first source position, and said first destination position and destination
4 positions proximate to said second position.

1 29. The computer program product of claim 18, wherein said second source
2 position corresponds to a position of a source point icon.

1 30. The computer program product of claim 18, wherein said pointing cursor
2 locks to said destination point icon until said destination point icon is actuated by a
3 user.

1 31. The computer program product of claim 18, wherein said pointing cursor
2 locks to said destination point icon until a motion vector indicates a more likely
3 destination point icon.

1 32. The computer program product of claim 17, wherein said pointing cursor
2 motion proceeds from said first source position to said destination point icon
3 corresponding to an ideal motion vector, said ideal motion vector motion changed
4 only if a new destination point icon is determined.

- 1 33. A data processing system comprising:
2 a central processing unit (CPU);
3 a random access memory (RAM);
4 a communications adapter coupled to a communication network;
5 an I/O adapter
6 a bus system coupling said CPU to said PROM, said communications adapter,
7 said I/O adapter, and said RAM, wherein said CPU comprises:
8 circuitry for acquiring data corresponding to a motion of a pointing cursor on a
9 display, said pointing cursor corresponding to a pointing device used to move said
10 pointing cursor from a first source position to a first destination position on said
11 display;
12 circuitry for generating a set of motion vectors corresponding to said motion
13 of said pointing cursor from said first source position to said first destination position,
14 said motion vectors having a vector source point, a magnitude and direction; and
15 circuitry for storing said set of motion vectors and said destination position
16 referenced to said first source position.

1 34. The data processing system of claim 33, further comprising:
2 circuitry for generating, within an application program, a first motion vector
3 for said pointing cursor on said display as said pointing cursor moves from a second
4 source position in response to a motion of said pointing device;

5 circuitry for predicting a destination point icon in response to a compare of
6 said first source position with a corresponding stored source position or a stored
7 proximate source position having a stored corresponding said first motion vector or a
8 proximate motion vector; and

9 circuitry for highlighting said destination point icon.

1 35. The data processing system of claim 33, further comprising:

2 circuitry for generating, within an application program, a first motion vector
3 for said pointing cursor on said display as said pointing cursor moves from a second
4 source position in response to a motion of said pointing device;

5 circuitry for predicting a destination point icon in response to a compare of
6 said first source position with a corresponding stored source position or a stored
7 proximate source position having a stored corresponding said first motion vector or a
8 proximate motion vector; and

9 circuitry for modifying a motion of said pointing cursor to follow ideal motion
10 vectors from said first source position to said destination point icon.

1 36. The data processing system of claim 33, wherein said display corresponds to a
2 graphic user interface (GUI).

1 37. The data processing system of claim 33, wherein said first source position is a
2 position of a predetermined source point icon.

1 38. The data processing system of claim 33, wherein said first destination position
2 is a position of a predetermined destination point icon.

1 39. The data processing system of claim 33, wherein another of said motion
2 vectors is generated each time said motion starts from a motion stop.

1 40. The data processing system of claim 33, wherein said motion vector comprises
2 parameters defining a pointing cursor average velocity, starting position, stopping
3 position, and motion direction.

1 41. The data processing system of claim 34, wherein said set of motion vectors are
2 stored in response to actuating said destination point icon.

1 42. The data processing system of claim 33, wherein said set of motion vectors are
2 associated with said first source position and source positions proximate to said first
3 source position, and said first destination position and destination positions proximate
4 to said second position.

1 43. The data processing system of claim 34, wherein said second source position
2 corresponds to a position of a source point icon.

1 44. The data processing system of claim 34, wherein said pointing cursor locks to
2 said destination point icon until said destination point icon is actuated by a user.

1 45. The data processing system of claim 34, wherein said pointing cursor locks to
2 said destination point icon until a motion vector indicates a more likely destination
3 point icon.

1 46. The data processing system of claim 35, wherein said pointing cursor motion
2 proceeds from said first source position to said destination point icon corresponding
3 to an ideal motion vector, said ideal motion vector motion changed only if a new
4 destination point icon is determined.

1 47. A method for improving a selection of a graphic user interface (GUI) icon
2 with a pointing device, comprising the step of:

3 predicting, within an application program, a destination point icon by
4 comparing a motion vector imparted by a user to a pointing cursor to a previously
5 acquired motion vector acquired from said user moving said pointing cursor.

1 48. The method of claim 47, further comprising the step of:

2 highlighting said destination point icon in response to said prediction step
3 until said predicted destination point icon is actuated by said user

1 49. The method of claim 47, further comprising the step of:

2 modifying a motion of said pointing cursor as a user moves a pointing device
3 corresponding to said pointing cursor in an attempt to move said pointing cursor from
4 a source point icon to said predicted destination point icon.

1 50. A computer program product, said computer program product embodied in a
2 machine readable medium, including programming for a processor, said computer
3 program comprising a program of instructions for performing the program step of:

4 predicting, within an application program, a destination point icon by
5 comparing a motion vector imparted by a user to a pointing cursor to a previously
6 acquired motion vector acquired from said user moving said pointing cursor.

1 51. The computer program product of claim 50, further comprising the step of:
2 highlighting said destination point icon in response to said prediction step
3 until said predicted destination point icon is actuated by said user

1 52. The computer program product of claim 50, further comprising the step of:
2 modifying a motion of said pointing cursor as a user moves a pointing device
3 corresponding to said pointing cursor in an attempt to move said pointing cursor from
4 a source point icon to said predicted destination point icon.

- 1 53. A data processing system comprising:
2 a central processing unit (CPU);
3 a random access memory (RAM);
4 a communications adapter coupled to a communication network;
5 an I/O adapter
6 a bus system coupling said CPU to said PROM, said communications adapter,
7 said I/O adapter, and said RAM, wherein said CPU comprises:
8 circuitry operable to predict, within an application program, a destination
9 point icon by comparing a motion vector imparted by a user to a pointing cursor to a
10 previously acquired motion vector acquired from said user moving said pointing
11 cursor.
- 1 54. The data processing system of claim 53, further comprising:
2 circuitry operable to highlight said predicted destination point icon until said
3 predicted destination point icon is actuated by said user

- 1 55. The data processing system of claim 53, further comprising:
2 circuitry operable to modify a motion of said pointing cursor as a user moves a
3 pointing device corresponding to said pointing cursor in an attempt to move said
4 pointing cursor from a source point icon to said predicted destination point icon.

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